

South Carolina Optional Retirement Program (State ORP)

PARTICIPANT SUMMARY

3rd Quarter 2018

**South Carolina ORP Fund Line-Up Comparison
September 30, 2018**

Asset Class		Mass Mutual	MetLife	TIAA	VALIC
Domestic Equity	Large Core	Vanguard Institutional Index (VINIX)	Vanguard Institutional Index (VINIX)	TIAA-CREF Equity Index I (TIEIX)	Vanguard Institutional Index (VINIX)
	Large Value	MFS Value R5 (MEIKX)	JP Morgan Equity Income R6 (OIEJX)	T. Rowe Price Inst Large Cap Value (TILCX)	Vanguard Value Index (VIVIX)
	Large Growth	MassMutual Select Blue Chip Growth I (MBCZX)	ClearBridge Large Cap Growth I (SBLYX)	-	T. Rowe Price Instl Large Cap Growth (TRLGX)
	Mid/SMID	Vanguard Mid Cap Index Inst (VMCIX)	Vanguard Mid Cap Index Inst (VMCIX)	Vanguard Mid Cap Index Inst (VMCIX)	Vanguard Mid Cap Index Inst (VMCIX)
	Small Core	Vanguard Small Cap Index Inst (VSCIX)	Delaware Small Cap Core (DCCIX)	TIAA-CREF Small Cap Index I (TISBX)	Vanguard Small Cap Index Inst (VSCIX)
	Small Value	American Beacon Small Cp Val Inst (AVFIX)	Victory Integrity Small-Cap Value R6 (MVSSX)	-	-
	Small Growth	INVESCO Small Cap Discovery R6 (VFSCX)	T. Rowe Price QM US Small-Cap Growth (PRDSX)	-	-
International Equity	Large Core	-	-	CREF Stock Annuity	-
	Large Value	-	Causeway International Value I (CIVIX)	-	-
	Large Growth	Oppenheimer International Growth I (OIGIX)	-	American Funds EuroPac Growth R6 (RERGX)	American Funds EuroPac Growth R6 (RERGX)
	Emerging	Thornburg Developing World R6 (TDWRX)	Harding Loevner Instl EM I (HLMEX)	American Funds New World R6 (RNWGX)	Vanguard Emerging Market Stock Index Adm (VEMAX)
Fixed Income	Core	JP Morgan Core Bond R6 (JCBUX)	-	TIAA-CREF Bond Index I (TBIIX)	Vanguard Total Bond Market Index I (VBTIX)
	Core Plus	-	MetWest Total Return Bond (MWT SX)	-	-
Inflation Hedge	TIPS/Real Assets	Vanguard Inflation Protected Secs Adm (VAIPX)	PIMCO Real Return Inst (PRRIX)	CREF Inflation Linked Bond Annuity	DFA Inflation Protected Securities I (DIP SX)
Target Date/Balanced	Multi-Asset Class	T. Rowe Price Retirement / American Funds American Balanced R6 (RLBGX)	American Funds Target Date Retire R6 / Columbia Balanced Y (CBDYX)	TIAA-CREF Lifecycle Instl	Vanguard Target Retirement Inv
Cash & Equivalents	Money Market/Stable Value	General Fixed Interest Account	Vanguard Federal Money Market (VMFXX) / MetLife Gold Track Select	TIAA CREF Money Market Instl (TCIXX) TIAA Traditional Annuity	VALIC Fixed Interest
Other	Industry Sector/Socially Responsible	Ivy Science and Technology R6 (ISTNX)	Principal Real Estate Securities I (PIREX)	CREF Real Estate Securities Fund (TIREX) / CREF Social Choice Annuity	Vanguard Health Care Adm (VGHAX)

South Carolina State ORP (MassMutual)

Fund Line-Up Statistics September 30, 2018

Fund	Ticker	Net Expense Ratio (%)	5-Year Standard Deviation (%)	Return (%) 1 Year	Return (%) 3 Years	Return (%) 5 Years
Domestic Equity						
Vanguard Institutional Index I	VINIX	0.04	10.06	17.86	17.27	13.92
MFS Value R6	MEIKX	0.49	10.04	7.12	13.20	10.84
MassMutual Select Blue Chip Growth I	MBCZX	0.65	12.48	23.49	20.74	16.95
Vanguard Mid Cap Index I	VMCIX	0.04	10.72	13.45	13.79	11.68
Vanguard Small Cap Index I	VSCIX	0.04	12.63	16.72	16.35	11.49
American Beacon Small Cap Value Instl	AVFIX	0.83	14.07	9.96	14.43	9.97
Invesco Small Cap Discovery R6	VFSCX	0.91	14.14	25.96	17.69	11.53
International Equity						
Oppenheimer International Growth I	OIGIX	0.69	11.70	-1.86	7.56	3.89
Thornburg Developing World R6	TDWRX	0.99	12.58	-3.17	9.20	2.19
Balanced						
American Funds American Balanced R6	RLBGX	0.28	6.50	9.20	11.45	9.54
Target Date						
T. Rowe Price Retirement I 2060 I	TRPLX	0.60	N/A	8.78	12.90	N/A
T. Rowe Price Retirement I 2055 I	TRPNX	0.60	N/A	8.87	12.99	N/A
T. Rowe Price Retirement I 2050 I	TRPMX	0.60	N/A	8.78	13.02	N/A
T. Rowe Price Retirement I 2045 I	TRPKX	0.60	N/A	8.78	13.02	N/A
T. Rowe Price Retirement I 2040 I	TRPDX	0.59	N/A	8.50	12.81	N/A
T. Rowe Price Retirement I 2035 I	TRPJX	0.58	N/A	8.05	12.25	N/A
T. Rowe Price Retirement I 2030 I	TRPCX	0.55	N/A	7.45	11.59	N/A
T. Rowe Price Retirement I 2025 I	TRPHX	0.52	N/A	6.69	10.70	N/A
T. Rowe Price Retirement I 2020 I	TRBRX	0.49	N/A	5.97	9.75	N/A
T. Rowe Price Retirement I 2015 I	TRFGX	0.45	N/A	4.91	8.50	N/A
T. Rowe Price Retirement I 2010 I	TRPAX	0.42	N/A	4.26	7.59	N/A
Specialty						
Ivy Science & Technology R6	ISTNX	0.85	15.06	20.36	19.16	12.68
Fixed Income						
JPMorgan Core Bond R6	JCBUX	0.35	2.57	-0.90	1.41	2.24
Vanguard Inflation-Protected Securities Adm	VAIPX	0.10	3.74	0.28	1.91	1.29
Stable Value						
General Fixed Interest	N/A	N/A	N/A	2.81	N/A	N/A

Expense Ratio and Standard Deviation: Lower is better

Return: Higher is better

South Carolina State ORP (MetLife)
Fund Line-Up Statistics September 30, 2018

Fund	Ticker	Net Expense Ratio (%)	5-Year Standard Deviation (%)	Return (%) 1 Year	Return (%) 3 Years	Return (%) 5 Years
Domestic Equity						
Vanguard Institutional Index I	VINIX	0.04	10.06	17.86	17.27	11.96
JPMorgan Equity Income R63	OIEJX	0.50	9.45	13.25	14.84	11.87
ClearBridge Large Cap Growth I	SBLIX	0.78	10.73	23.50	18.95	16.46
Vanguard Mid Cap Index I	VMCIX	0.04	10.72	13.45	13.79	11.68
Delaware Small Cap Core I	DCCIX	0.93	14.10	15.12	17.24	12.28
Victory Integrity Small-Cap Value R63	MVSSX	0.96	14.51	8.11	13.39	9.44
T. Rowe Price Diversified Small Cap Growth	PRDSX	0.79	12.86	22.26	17.92	13.30
International Equity						
Causeway International Value Instl	CIVIX	0.89	11.28	0.33	7.82	3.38
Harding Loevner Instl Emerging Markets I	HLMEX	1.28	14.07	-4.30	11.80	4.33
Balanced						
Columbia Balanced Y3	CBDYX	0.61	6.53	7.49	9.82	8.77
Target Date						
American Funds 2060 Trgt Date Retire R6	RFUTX	0.45	N/A	11.35	13.87	N/A
American Funds 2055 Trgt Date Retire R6	RFKTX	0.42	8.95	11.31	13.91	10.32
American Funds 2050 Trgt Date Retire R6	RFITX	0.42	8.94	11.37	13.91	10.35
American Funds 2045 Trgt Date Retire R6	RFHTX	0.41	8.88	11.08	13.76	10.26
American Funds 2040 Trgt Date Retire R6	RFCTX	0.41	8.75	10.68	13.45	10.08
American Funds 2035 Trgt Date Retire R6	RFFTX	0.40	8.47	10.04	12.95	9.79
American Funds 2030 Trgt Date Retire R6	RFETX	0.39	7.72	8.30	11.47	8.98
American Funds 2025 Trgt Date Retire R6	RFDTX	0.37	6.56	6.58	9.71	7.89
American Funds 2020 Trgt Date Retire R6	RRCTX	0.35	5.60	5.20	8.40	6.97
American Funds 2015 Trgt Date Retire R6	RFJTX	0.33	4.99	4.02	7.52	6.24
American Funds 2010 Trgt Date Retire R6	RFTTX	0.34	4.72	3.39	7.06	5.79
Specialty						
Principal Real Estate Securities Instl	PIREX	0.87	12.95	6.06	8.17	10.27
Fixed Income						
Metropolitan West Total Return Bond Plan	MWTSX	0.37	2.40	-0.81	1.45	2.34
PIMCO Real Return Instl	PRRIX	0.88	3.34	0.26	2.29	1.23
MMF/Stable Value						
Vanguard Federal Money Market Inv	VMFXX	0.11	0.18	1.50	0.79	0.48
Gold Track Select	N/A	N/A	0.03	2.13	2.58	2.75

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South Carolina State ORP (TIAA)
Fund Line-Up Statistics September 30, 2018

Fund	Ticker	Net Expense Ratio (%)	5-Year Standard Deviation (%)	Return (%) Year	1 Return (%) Years	3 Return (%) Years	5 Return (%) Years
Domestic Equity							
TIAA-CREF Equity Index Instl	TIEIX	0.05	10.24	17.49	17.03	13.42	
T. Rowe Large Cap Value I	TILCX	0.57	10.33	8.89	14.69	10.99	
Vanguard Mid Cap Index I	VMCIX	0.04	10.72	13.45	13.79	11.68	
TIAA-CREF Small-Cap Blend Index Instl	TISBX	0.06	14.44	15.41	17.28	11.16	
International Equity							
CREF Stock R3	QCSTIX	0.32	9.54	11.79	14.38	9.60	
American Funds Europacific Growth R6	RERGX	0.49	11.14	1.47	9.92	6.18	
American Funds New World R6	RNWXG	0.64	10.97	1.15	1.53	4.79	
Balanced							
CREF Social Choice R3	QCSCIX	0.27	5.67	6.93	9.33	6.80	
Target Date							
TIAA-CREF Lifecycle 2060 Instl	TLXNX	0.45	N/A	11.21	14.07	N/A	
TIAA-CREF Lifecycle 2055 Instl	TTRIX	0.45	9.91	11.09	13.94	9.88	
TIAA-CREF Lifecycle 2050 Instl	TFTIX	0.45	9.51	10.89	13.82	9.82	
TIAA-CREF Lifecycle 2045 Instl	TTFIX	0.45	9.80	10.86	13.66	9.72	
TIAA-CREF Lifecycle 2040 Instl	TCOIX	0.44	9.59	10.13	13.13	9.43	
TIAA-CREF Lifecycle 2035 Instl	TCIIX	0.43	8.80	9.08	12.12	8.88	
TIAA-CREF Lifecycle 2030 Instl	TCRIX	0.42	7.97	8.00	11.11	8.27	
TIAA-CREF Lifecycle 2025 Instl	TCYIX	0.41	7.14	7.05	10.09	7.64	
TIAA-CREF Lifecycle 2020 Instl	TCWIX	0.40	6.26	5.90	9.09	6.97	
TIAA-CREF Lifecycle 2015 Instl	TCNIX	0.39	5.57	5.21	8.16	6.36	
TIAA-CREF Lifecycle 2010 Instl	TCTIX	0.38	5.06	4.55	7.50	5.87	
TIAA-CREF Lifecycle Retirement Inc Instl	TLRIX	0.38	4.67	4.29	7.10	5.51	
Specialty							
TIAA-CREF Real Estate Sec Instl	TIREX	0.51	12.37	5.89	8.57	10.07	
Fixed Income							
TIAA-CREF Bond Index Instl	TBIIX	0.12	2.81	-1.40	1.13	2.04	
CREF Inflation Linked Bond R3	QCILIX	0.24	3.39	0.21	1.57	0.78	
MMF/Stable Value							
TIAA-CREF Money Market Instl	TCIXX	0.15	0.17	1.44	0.75	0.45	
TIAA Traditional	N/A	N/A	0.06	4.25	4.19	4.04	

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South Carolina State ORP (VALIC)
Fund Line-Up Statistics September 30, 2018

Fund	Ticker	Net Expense Ratio (%)	5-Year Standard Deviation (%)	Return (%) Year	1 Return (%) Years	3 Return (%) Years	5 Return (%) Years
Domestic Equity							
Vanguard Institutional Index I	VINIX	0.04	10.06	17.86	17.27	13.92	
Vanguard Value Index I	VIVIX	0.04	9.69	13.58	15.86	12.44	
T. Rowe Price Instl Large Cap Growth	TRLGX	0.56	12.69	28.43	22.68	17.99	
Vanguard Mid Cap Index I	VMCIX	0.04	10.72	13.45	13.79	11.68	
Vanguard Small Cap Index I	VSCIX	0.04	12.63	16.72	16.35	11.49	
International Equity							
American Funds Europacific Growth R6	RERGX	0.49	11.14	1.47	9.93	6.20	
Vanguard Emerging Markets	VEMAX	0.14	14.90	-3.10	10.08	2.98	
Target Date							
Vanguard Target Retirement 2060 Inv	VTTSX	0.15	9.09	9.81	12.89	9.35	
Vanguard Target Retirement 2055 Inv	VFFVX	0.15	9.08	9.79	12.89	9.34	
Vanguard Target Retirement 2050 Inv	VFIFX	0.15	9.10	9.84	12.90	9.38	
Vanguard Target Retirement 2045 Inv	VTIVX	0.15	9.10	9.85	12.91	9.39	
Vanguard Target Retirement 2040 Inv	VFORX	0.15	8.92	9.37	12.54	9.17	
Vanguard Target Retirement 2035 Inv	VTHHX	0.14	8.21	8.51	11.61	8.69	
Vanguard Target Retirement 2030 Inv	VTHRX	0.14	7.43	7.65	10.66	8.13	
Vanguard Target Retirement 2025 Inv	VTTVX	0.14	6.70	6.79	9.71	7.56	
Vanguard Target Retirement 2020 Inv	VTWNX	0.13	5.92	5.87	8.68	6.92	
Vanguard Target Retirement 2015 Inv	VTXVX	0.13	4.89	4.54	7.15	5.92	
Vanguard Target Retirement Income Inv	VTINX	0.13	3.40	3.31	5.36	4.52	
Specialty							
Vanguard Health Care Adm	VGHAX	0.33	12.61	14.58	10.50	14.80	
Fixed Income							
Vanguard Total Bond Market Index I	VBTIX	0.04	2.84	-1.38	2.11	2.91	
DFA Inflation-Protected Securities I	DIPSX	0.12	4.16	-0.05	1.81	1.23	
MMF/Stable Value							
VALIC Fixed Interest Option	N/A	-	0.03	2.00	2.11	2.18	

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South Carolina ORP Vendor Fee Comparison September 30, 2018

